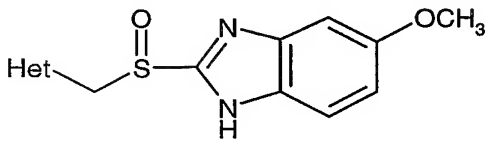
Claims

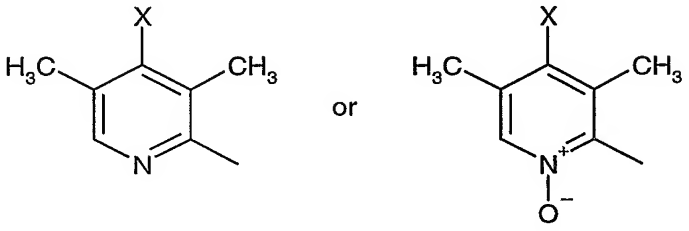
1. A compound of formula I either as a single enantiomer or in an enantiomerically enriched form



I

wherein

Het is



and X is a leaving group such as a halogen (F, Cl, Br, I), NO_2, N_2^+or OSO_2R (R is CH_3, CF_3, p-toluene, m-chlorobenzene, p-chlorobenzene), and tautomers thereof.

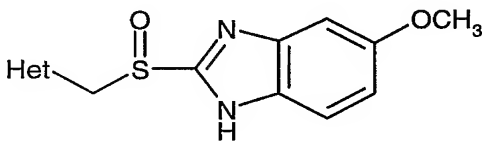
2. 2-[[(4-Chloro-3,5-dimethyl-2-pyridinyl)methyl]sulfinyl]5-methoxy-1*H*-benzimidazole either as a single enantiomer or in an enantiomerically enriched form, and the tautomer thereof.

3. 2-[[(4-Nitro-3,5-dimethyl-2-pyridinyl)methyl]sulfinyl]5-methoxy-1*H*-benzimidazole either as a single enantiomer or in an enantiomerically enriched form, and the tautomer thereof.

4. 2-[[(4-Chloro-3,5-dimethyl-1-oxidopyridin-2-yl)methyl]sulfinyl]-5-methoxy-1*H*-benzimidazole either as a single enantiomer or in an enantiomerically enriched form, and the tautomer thereof.

5. 2-[[(4-Nitro-3,5-dimethyl-1-oxidopyridin-2-yl)methyl]sulfinyl]-5-methoxy-1*H*-benzimidazole either as a single enantiomer or in an enantiomerically enriched form, and the tautomer thereof.

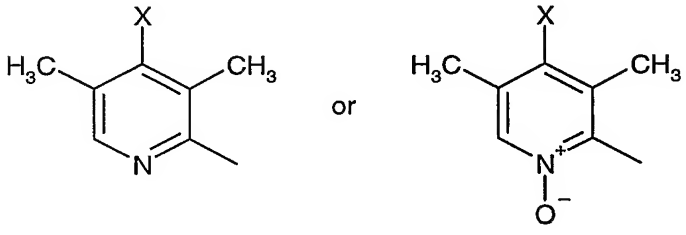
6. A process for enantioselective synthesis of a sulphoxide of formula I either as a single enantiomer or in an enantiomerically enriched form



I

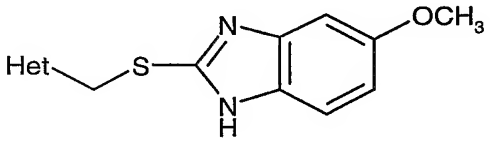
wherein

Het is



and X is a leaving group such as a halogen (F, Cl, Br, I), NO_2, N_2^+or OSO_2R (R is CH_3, CF_3, p-toluene, m-chlorobenzene, p-chlorobenzene),

characterized in that a pro-chiral sulphide of the formula II



II

wherein Het is defined as above,

i) is oxidised in an organic solvent with an oxidising agent and in the presence of a chiral titanium complex and a base, or

ii) is oxidised in an organic solvent with an oxidising agent and in the presence of a chiral titanium complex, optionally in the presence of a base, wherein the titanium complex has been prepared in the presence of the pro-chiral sulphide, or

iii) is oxidised in an organic solvent with an oxidising agent and in the presence of a chiral titanium complex, optionally in the presence of a base, wherein the titanium complex has been prepared during an elevated temperature and/or a prolonged preparation time, or

iv) is oxidised in an organic solvent with an oxidising agent and in the presence of a chiral titanium complex, optionally in the presence of a base, wherein the titanium complex is prepared in the presence of the pro-chiral sulphide and during an elevated temperature and/or during a prolonged preparation time

7. A process for synthesizing *S*-5-methoxy-2-[[(4-methoxy-3,5-dimethyl-2-pyridinyl)-methyl]sulphinyl]-1*H*-benzimidazole using as starting material a compound according to

Formula I, wherein the leaving group is replaced by methoxide, or alternatively the leaving group is replaced by methoxide prior to or after reduction of the oxidopyridine to pyridine.

8. *S*-5-Methoxy-2-[[(4-methoxy-3,5-dimethyl-2-pyridinyl)-methyl]sulphinyl]-1*H*-benzimidazole prepared by a process comprising a combination of steps from the process defined in claims 6 and 7.

9. A pharmaceutical preparation comprising the *S*-5-methoxy-2-[[(4-methoxy-3,5-dimethyl-2-pyridinyl)-methyl]sulphinyl]-1*H*-benzimidazole and a pharmaceutically acceptable carrier or diluent characterized in that the *S*-5-methoxy-2-[[(4-methoxy-3,5-dimethyl-2-pyridinyl)-methyl]sulphinyl]-1*H*-benzimidazole is prepared by a process according to claims 6 and 7.